

What is claimed:

- 1           1.       A method for forming a head suspension assembly, comprising:  
2           forming a sacrificial layer in or on a portion of a substrate;  
3           forming a transfer film across the substrate;  
4           patterning a photoresist layer on top of the transfer film;  
5           transferring the image of the patterned photoresist layer through the transfer film;  
6           removing the patterned photoresist layer; and  
7           removing the sacrificial layer to form a cavity extending a distance into the substrate.
- 1           2.       A method as in claim 1, wherein the transfer film includes silicon.
- 1           3.       A method as in claim 1, wherein the transferring the image of the patterned  
2           photoresist layer through the transfer film is done using reactive ion etching.
- 1           4.       A method as in claim 1, wherein the substrate comprises silicon and the  
2           sacrificial layer is formed by etching a trench in the substrate and filling the trench with a  
3           metal.
- 1           5.       A method as in claim 4, wherein removing the sacrificial layer comprises  
2           etching the metal from the trench.
- 1           6.       A method as in claim 1, further comprising forming the transfer film from a  
2           polymer material.
- 1           7.       A method as in claim 1, wherein the substrate comprises silicon and the  
2           transfer film comprises polysilsesquioxone.

1           8.       A method as in claim 1, wherein the cavity extends a width that is no greater  
2       than that of the suspension arm and the cavity extends a depth that is less than the depth of  
3       the suspension arm.

1           9.       A method as in claim 1, further comprising forming an adhesion layer  
2       between the substrate and the transfer film.

1           10.      A method as in claim 3, wherein the transfer film comprises a resin, and  
2       positioning a slider on the resin after the removing the sacrificial layer.

1           11.      A method for forming a head suspension assembly, comprising:  
2       forming a polysilsesquioxone layer over a portion of a substrate;  
3       forming a photoresist layer on the polysilsesquioxone layer;  
4       patterning the photoresist layer; and  
5       etching the polysilsesquioxone layer using the patterned photoresist layer as a mask;  
6       and  
7       removing the patterned photoresist layer.

1           12.      A method as in claim 11, further comprising, prior to forming the photoresist  
2       layer, curing the polysilsesquioxone layer.

1           13.      A method as in claim 12, further comprising, prior to forming the  
2       polysilsesquioxone layer, forming a trench in the substrate and forming a sacrificial layer in  
3       the trench, wherein the polysilsesquioxone layer is formed over the sacrificial layer.

1           14.      A method as in claim 13, further comprising forming the sacrificial layer  
2       from a metal material.

1           15.     A method as in claim 13, further comprising forming the sacrificial layer  
2 from copper.

1           16.     A method as in claim 13, further comprising removing the sacrificial material  
2 from the trench after the etching the polysilsesquioxone layer.

1           17.     A method as in claim 12, further comprising positioning a slider on the cured  
2 polysilsesquioxone layer after the removing the patterned photoresist layer.